Critical thinking

Defining Critical thinking

• The process of purposeful, self-regulatory judgment

o Purpose: form a well-reasoned and fair-minded judgment regarding what to believe/do

• Critical thinking is not

o About bashing people’s beliefs

o About using argumentation to defend beliefs we know are untrue

Encoding- creating a message

Decoding is understanding a message

• Listening and speaking required when dealing with an important/complex message

o Listening intelligently requires CT skills

o Comprehensive and critical listening require CT skills

o Responding intelligently requires CT skills

Cognitive skills of critical thinking

• Interpretation

o Comprehend the meaning/significance of a variety of experiences, situations, events,

etc.

o To use it, ask questions such as: what does that mean? What’s the best way to

categorize this?

• Analysis

o Identify the intended and actual relationships among statements, questions, and

concepts

o To use it:

♣ Why do you think that?

♣ What is your basis for thinking that?

♣ What assumptions must we make to assume that conclusion?

• Evaluation

o Assess the credibility of statements and logical strength of the actual/intended

inferential relationship

o To use it:

♣ How credible is the claim?

♣ Are the facts credible? Accurate?

♣ How confident can we be in this conclusion?

• Self-Regulation

o Monitor one’s cognitive activities, the elements in those activities, and the results.

o To use it:

♣ Before we commit, what are we missing?

♣ I think we could be less vague, could you describe more precisely?

• Inference

o Identify elements needed to draw reasonable conclusions; form hypotheses; consider

relevant information

o To use it:

♣ Given what we know, what conclusions can we draw?

♣ What does this evidence imply?

♣ What additional info is needed?

• Explanation

o Stating and justifying reasoning in terms of arguments and evidence… and doing so

clearly

o To use it:

♣ What are the findings of this investigation?

♣ What analysis did you use to come to this interpretation?

Inductive reasoning

• Drawing inferences about what is most likely to be true or not true, given certain info (the info

comes first)

Deductive Reasoning

• Drawing inferences when it appears that, if all of the premises are true, the conclusion cannot

possibly be false

Strong CT requires both willingness and ability

Truth Seeking

• Having intellectual integrity, desire to strive for best-possible knowledge

Open Minded

• Tolerant of divergent views, sensitive to possibility of own biases

Analytical

• Alert to potential problems. Anticipate consequences

Systematic

• Take an organized and thorough approach to identifying/resolving problems

Confident in reasoning

• Trustful of own reasoning skills to yield good judgments

Inquisitive

• Strive to be well-informed, seeks to learn new things about a range of topics

Judicious

• Approach problems knowing there can be more than one plausible solution

Habits that hinder thinking

• Mine is better

o Believing our ideas, values, group memberships, etc. are superior than others’, based

only on our ego.

• Face saving

o Protecting or restoring our self-image following some threat to it.

• Resistance to change

o Rejecting new ideas without objectively considering them; may be due to laziness, fear,

or need to uphold routine/tradition

• Conformity

o Following the social norm, believing and acting as others do

• Stereotyping

o Relying on irrational generalizations to attribute characteristics

• Self-deception

o Persuading yourself that others are to blame, not your own incompetency

Problem Solving

• Problem Solving

o Recognizing a difficulty and then resolving the problem, for the current time and

circumstances.

• IDEAS model

o I- Identify the problem and set priorities

♣ Multiple demands

♣ Truth-seeking in prioritizing

o D- Deepen understanding and gather relevant information

♣ Finding info

♣ Credibility

♣ What will you do with it?

o E- Enumerate options and anticipate consequences

♣ Open-mindedness

♣ Foresight

♣ Avoid overlooking alternatives (esp. when groupthink may be occurring)

o A- Assess the situation and make a preliminary decision

♣ Using all info & decisions together

♣ Avoid snap judgments

♣ Knowing why

o S- Scrutinize the process and self-correct as needed

♣ Your decisions-- - desired outcomes?

♣ Changes

♣ Long-term goals?